

## ABSTRACT

A two-dimensional image formation apparatus according to the present invention is provided with laser sources (1a)~(1c), diffusers (6a)~(6c) for diffusing light, illumination optical systems for irradiating the diffusers (6a)~(6c) with lights emitted from the laser sources (1a)~(1c), diffuser vibration units (13a)~(13c) for vibrating the diffusers (6a)~(6c), and spatial light modulators (7a)~(7c) disposed near the diffusers (6a)~(6c), for modulating the lights emitted from the laser sources (1a)~(1c) and diffused by the diffusers (6a)~(6c), wherein the diffusers (6a)~(6c) are vibrated by the diffuser vibration units (13a)~(13c) at a velocity that satisfies a relationship,  $V > d \times 30$  (millimeters/sec), which is established between the grain size  $d$  of the diffusers and the vibration speed  $V$  of the diffusers, whereby speckle noise existing in an image projected on a screen (11) can be effectively reduced.